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10/570,348	03/03/2006	Chong-hak Choi	0011.1010	5407

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STEIN, MCEWEN & BUI, LLP
1400 EYE STREET, NW
SUITE 300
WASHINGTON, DC 20005

EXAMINER

SAFARI, MICHAEL

ART UNIT	PAPER NUMBER
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3637

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02/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/570,348	Applicant(s) CHOI ET AL.	
	Examiner Michael Safavi	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Supplemental Action

Below, find an action supplemental to the previous Office action, mailed December 21, 2006, for U.S. application 10/336,729. The shortened statutory period for response is set to expire three months from the mailing date of this Office action. The previous Office action of December 21, 2006 had not addressed claims 9-17 which have been presented with the filing of the instant application.

Drawings

1) The drawings are objected to under 37 CFR 1.84 because **a)** the drawings contain different figures grouped together and without appropriate labeling. See for example, Figs. 1c, 2b, 4a, 4d, 5d and 8. **b)** The drawings include reference characters that appear to be “floating” on the respective sheets of drawings. See for example, Figs. 2a, 2b, 3a, 3b, 4a, 5b, 5d, 6a, and 6b. **c)** Further, the drawing sheets are not labeled in accordance with 37 CFR 1.84(t).

As per 37 CFR § 1.84(h),

Views must not be connected by projection lines and must not contain center lines.

As per 37 CFR § 1.84(i),

One view must not be placed upon another or within the outline of another.

As per 37 CFR § 1.84(h)(1),

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Exploded views, with the separated parts embraced by a bracket, to show the relationship or order of assembly of various parts are permissible.

When an exploded view is shown in a figure which is on the same sheet as another figure, the exploded view should be placed in brackets.

As per 37 CFR § 1.84(h)(2),

When a portion of a view is enlarged for magnification purposes, the view and the enlarged view must each be labeled as separate views.

As per 37 CFR § 1.84(h)(5),

Modified forms of construction must be shown in separate views.

As per 37 CFR § 1.84(u)(1),

The different views must be numbered in consecutive Arabic numerals, starting with 1, independent of the numbering of the sheets and, if possible, in the order in which they appear on the drawing sheet(s). Partial views intended to form one complete view, on one or several sheets, must be identified by the same number followed by a capital letter. View numbers must be preceded by the abbreviation "FIG."

As per 37 CFR § 1.84(u)(2),

The view numbers must be larger than the numbers used for reference characters.

As per 37 CFR § 1.84(q),

Lead lines are required for each reference character except for those which indicate the surface or cross section on which they are placed. Such

a reference character must be underlined to make it clear that a lead line has not been left out by mistake.

As per 37 CFR § 1.84(t),

Numbering of sheets of drawings . The sheets of drawings should be numbered in consecutive Arabic numerals, starting with 1, within the sight as defined in paragraph (g) of this section. These numbers, if present, must be placed in the middle of the top of the sheet, but not in the margin. The numbers can be placed on the right-hand side if the drawing extends too close to the middle of the top edge of the usable surface. The drawing sheet numbering must be clear and larger than the numbers used as reference characters to avoid confusion. The number of each sheet should be shown by two Arabic numerals placed on either side of an oblique line, with the first being the sheet number and the second being the total number of sheets of drawings, with no other marking.

2) Figures 1a, 1b, and 1c should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

3) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 22, 23, 141A, 144A, 241A.

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4) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because: **a)** reference characters "11" and "20" and "21" have each been used to designate "mold panel"; **b)** reference characters "33" and "10" and "F" have each been used to designate "framework".

5) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because: **a)** reference character "10" has been used to designate both "framework" and "mold panel"; **b)** reference character "11" has been used to designate both "rectangular slit" and "mold panel"; **c)** reference character "13" has been used to designate both "upper iron-bar" and "lattice iron-bar"; **d)** reference character "20" has been used to designate both "supporting means" and "mold panel"; **e)** reference character "21" has been used to designate all of "rectangular slit", "securing support", "insert hole", "notch portion", and "mold panel"; **f)** reference character "30" has been used to designate both "lattice iron-bar" and "securing device"; **g)** reference character "33" has been used to designate both "framework" and "wedge portion"; **h)** reference character "P" has been used to designate both "nails" and "hanger pole".

6) The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "recesses formed at both sides of the contacting portions of the sliding plate", (**claim 2**), as well as the "sliding elongated openings formed at both sides of the contacting portion of the sliding plate", (**claim 3**), as well as the "joint members engaged with the panel after passing

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through the elongated openings”, (**claim 3**), as well as the “the interval maintaining means comprises a supporting member interposed between the lower main iron-bar and the panel and connected to the engaging portion of the connecting means and the exposure portion”, (**claim 9**), must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not appear clear and complete as to “the interval maintaining means comprises a supporting member interposed between the lower main iron-bar and the panel and connected to the engaging portion of the connecting means and the exposure portion” as appears in **claim 9**. How specifically, is the “supporting member...connected to the engaging portion of the connecting means and the exposure portion”?

The specification does not appear clear and complete as to “the engaging portion of the connecting means comprises a hook portion or an engaging portion, upper portion or lower portion or all of which being engaged with the main iron-bar” as appears in **claim 10**. How for example, does “the engaging portion” of the “connecting means”

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comprise “an engaging portion”? How for example, does “the engaging portion” of the “connecting means” comprise “all of which being engaged with the main iron-bar”? The specification does not appear clear as to how the “main iron-bar” is engaged by more than one portion.

The specification does not appear clear and complete as to how the “extension portion...is formed with a thread portion at the opposite end thereof for engaging with the nut bushing” as appears in **claim 13**. The specification does not appear clear and complete as to how “the extension portion...is formed with a thread portion at the opposite end thereof”.

The specification does not appear clear and complete as to “the engaging portion of the connecting means include a hook portion or an engaging portion with its upper portion or lower portion or all of them engaged with the main iron-bar” as appears in **claim 14**. How for example, does “the engaging portion” of the “connecting means” include “an engaging portion”? How for example, does “the engaging portion” of the “connecting means” include “all of them engaged with the main iron-bar”? The specification does not appear clear as to how the “main iron-bar” is engaged by more than one portion.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 2-3, the recitation “comprised of at least two lower and upper main iron-bars” is vague and indefinite in that it is not clear if there are two lower bars and two upper bars or merely a lower bar and an upper bar. Line 3, “the interval there-between” lacks antecedent basis within the claim. It is therefore, not clear as to what “the interval there-between” refers. Line 4, “the interval” lacks antecedent basis within the claim. It is therefore, not clear as to what “the interval” refers. Line 8, “the lowest point” lacks antecedent basis within the claim. It is therefore, not clear as to what “the lowest point” refers. Line 9, “the highest point” lacks antecedent basis within the claim. It is therefore, not clear as to what “the highest point” refers. Line 10, “the respective position” lacks antecedent basis within the claim. It is therefore, not clear as to what “the respective position” refers. Line 16, “the engagement with the narrow portion of the slit” lacks antecedent basis within the claim. It is therefore, not clear as to what “the engagement with the narrow portion of the slit” refers. Lines 17-18, “the extension portion of the slit of the sliding plate” lacks antecedent basis within the claim. It is therefore, not clear as to what “the extension portion of the slit of the sliding plate” refers. It is therefore, not clear as to what is being defined by “after extending to the extension portion of the slit of the sliding plate via the insert hole of the panel of the mold assembly.”

Claim 2, lines 5-6, it is not clear as to what is being defined by “and two engaging portions contacting with the recess of the sliding plate” particularly, with the specification not clearly defining such.

Claim 3, line 4, it is not clear as to what is being defined by “joint members engaged with he panel”. The specification does not appear to provide antecedent basis for “joint members”.

Claim 6, each of lines 6 and 9, “the two engaging members” lacks antecedent basis within the claim. It is therefore, not clear as to what “the two engaging members” refers. In each of line 8 and line 10, “the engaging bracket” lacks antecedent basis within the claim. It is therefore, not clear as to what “the engaging bracket” refers. Line 11, “the two adjacent engaging members” lacks antecedent basis within the claim. It is therefore, not clear as to what “the two adjacent engaging members” refers.

Claim 9, it is not clear as to what is being defined by “the interval maintaining means comprises a supporting member interposed between the lower main iron-bar and the panel and connected to the engaging portion of the connecting means and the exposure portion”. The specification does not appear clear and complete as to “a supporting member...connected to the engaging portion of the connecting means and the exposure portion”.

Claim 10, it is not clear as to what is being defined by “the engaging portion of the connecting means comprises a hook portion or an engaging portion, upper portion or lower portion or all of which being engaged with the main iron-bar”. The specification does not appear clear and complete as to how “the engaging portion” of the “connecting means” comprise “all of which being engaged with the main iron-bar”. The specification does not appear clear as to how the “main iron-bar” is engaged by more than one

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portion. Is the recited “engaging portion” of line 2 the same as “the engaging portion” of lines 1-2? Line 3, to which main iron-bar does “the main iron-bar” refer?

Claim 11, it is not clear as to how the “engaging portion” is or “concurrently acts as” the “interval maintaining means” when as is recited in claim 9 from which claim 11 depends, the “interval maintaining means...[is] connected to the engaging portion”. Line 2, the recitation of “have a cross-section of “Π” is vague, indefinite, and confusing as not being clear. Applicant must clearly describe the structure in words that convey the features of the invention to be patented. See 37 CFR 1.75(a).

Claim 13, lines 4-5, it is not clear as to how the recited “extension portion” is part of the “exposure portion” or at least it is not clear as to how the “extension portion...is formed with a thread portion at the opposite end thereof for engaging with the nut bushing”. The specification does not appear clear and complete as to how “the extension portion...is formed with a thread portion at the opposite end thereof for engaging with the nut bushing”.

Claim 14, it is not clear as to how “the engaging portion of the connecting means include a hook portion or an engaging portion with its upper portion or lower portion or all of them engaged with the main iron-bar”. The specification does not appear clear and complete as to “the engaging portion of the connecting means include a hook portion or an engaging portion with its upper portion or lower portion or all of them engaged with the main iron-bar”. How for example, does “the engaging portion” of the “connecting means” include “an engaging portion”? How for example, does “the engaging portion” of

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the “connecting means” include “all of them engaged with the main iron-bar”? The specification does not appear clear as to how the “main iron-bar” is engaged by more than one portion. Is the recited “engaging portion” of line 2 the same as “the engaging portion” of lines 1-2? Line 3, to what does “them” refer? Line 3, to which main iron-bar does “the main iron-bar” refer? Line 4, “the connection portion” lacks antecedent basis within the claim. It is therefore, not clear as to what “the connection portion” refers. Line 5, to which engaging portion does “the engaging portion” refer? Further, it is not clear as to what “an engaging portion with its upper portion or lower portion” serves to define. The specification does not appear to provide antecedent basis for “an engaging portion with its upper portion or lower portion” at least, not of an “engaging portion” forming part of an “engaging portion”. Lines 5-6, “the upper surface of the panel” lacks antecedent basis within the claim. It is therefore, not clear as to what “the upper surface of the panel” refers.

Claim 16, line 2, “the upward movement of the plate member” lacks antecedent basis within the claim. It is therefore, not clear as to what “the upward movement of the plate member” refers.

Claim 17, it is not clear as to how “the engaging portion of the connecting means include a hook portion or an engaging portion with its upper portion, lower portion or all of them engaged with the main iron-bar”. The specification does not appear clear and complete as to “the engaging portion of the connecting means include a hook portion or an engaging portion with its upper portion, lower portion or all of them engaged with the main iron-bar”. How for example, does “the engaging portion” of the “connecting means”

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include “an engaging portion”? How for example, does “the engaging portion” of the “connecting means” include “all of them engaged with the main iron-bar”? The specification does not appear clear as to how the “main iron-bar” is engaged by more than one portion. Is the recited “engaging portion” of line 2 the same as “the engaging portion” of lines 1-2? Line 3, to what does “them” refer? Line 3, to which main iron-bar does “the main iron-bar” refer? Line 4, “the connection portion” lacks antecedent basis within the claim. It is therefore, not clear as to what “the connection portion” refers. Line 5, to which engaging portion does “the engaging portion” refer? Further, it is not clear as to what “an engaging portion with its upper portion or lower portion” serves to define. The specification does not appear to provide antecedent basis for “an engaging portion with its upper portion or lower portion” at least, not of an “engaging portion” forming part of an “engaging portion”. Line 6, “the lower surface of the lower main iron-bar” lacks antecedent basis within the claim. It is therefore, not clear as to what “the lower surface of the lower main iron-bar” refers. Line 6, “the lower main iron-bar” lacks antecedent basis within the claim. It is therefore, not clear as to what “the lower main iron-bar” refers. Or, to which lower main iron-bar does “the lower main iron-bar” refer? Line 6, “the upper surface of the panel” lacks antecedent basis within the claim. It is therefore, not clear as to what “the upper surface of the panel” refers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruehlman '343 in view of either of Weston '147 and Goeltz '018.

Bruehlman discloses a framework 1/2/3 of rods with lattice bars; a mold assembly including a panel 20 formed with a plurality of holes positioned below the framework, a wedge portion 9 with slit 14, and a sliding plate 4. A connecting means 18 serves to connect the framework with the panel. Bruehlman does not appear to specifically disclose use of iron bars for the framework section.

However, either of Weston and Goeltz discloses use of iron bars to form framework sections. Therefore, to have provided the Bruehlman assembly with iron rods forming the framework section 1/2/3, thus taking advantage of an old and well known framework section material, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Weston '147 and Goeltz.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Safavi whose telephone number is (571) 272-7046. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Safavi/
Primary Examiner, Art Unit 3637

M. Safavi
February 10, 2008